DOCUMENT RESUME

ED 298 217 UD 026 351

AUTHOR Brouillet, Frank B.
TITLE An Evaluation Program for Integrated Elementary Schools and Programs. Multicultural Education Resource Series.
INSTITUTION Washington Office of the State Superintendent of Public Instruction, Olympia.
PUB DATE Sep 87
NOTE 20p.; Originally printed in December 1982.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; American Indians; Asian Americans; Black Students; *Desegregation Effects; Elementary Education; *Elementary Schools; Elementary School Students; Equal Education; Hispanic Americans; Minority Group Children; *Multicultural Education; Program Effectiveness; *Racial Integration; *School Desegregation; *Social Integration

ABSTRACT

This program was developed for use for those who wish to learn more about the increasing complexity of implementing school desegregation, school integration, and equal educational opportunities for all children and youth in the public schools. It is designed to assist school districts in evaluating the extent to which desegregated elementary schools are developing an integrated educational program. Information about individual schools may be used by the staff to accomplish the following: (1) assess their current status in developing an integrated school; and (2) chart changes over a period of time in developing an integrated school. This individual school assessment method was originally developed and field-tested in four California school districts in 1972. The program may be used with Asian, American Indian, Black and Hispanic children. Critical dimensions of cultural and structural integration assessed are the following: (1) student self-concepts and attitudes toward school; (2) student academic achievement; (3) development of multicultural programs; (4) multiethnic student roles; (5) multiethnic educator roles; and (6) multiethnic parent roles. Because of large differences between assessment profiles of different schools in the same school district, it is suggested that principals concentrate on their individual school's completed profile as a guide for goal setting and planning. An example of a completed profile from an actual school and instructions for interpretation are included. (Author/FMW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

9-13-88 UD

ED298217

Office For Equity Education's
Multicultural Education Resource Series

AN EVALUATION PROGRAM FOR INTEGRATED ELEMENTARY SCHOOLS AND PROGRAMS

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
John C. Butterford
WA Superintendent of Public Instruction
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

State of Washington

Superintendent of Public Instruction

DR. FRANK B. BROUILLET
Superintendent

CHERYL CHOW
Assistant Superintendent
Division of Instructional
Programs and Services

WARREN H. BURTON
Director
Office for Multicultural
and Equity Education

December 1982
Reprinted: September 1987

September 21, 1987

To Whom It May Concern:

This publication was developed for use by those who wish to learn more about the increasing complexity of implementing school desegregation, school integration, and equal educational opportunities for all children and youth in the public schools.

The program to evaluate elementary schools is designed to assist school districts in evaluating the extent to which desegregated elementary schools are developing an integrated educational program. The primary purpose is to provide information about individual schools which may be used by the staff of each school to: (1) assess their current status in developing an integrated school; and (2) to chart changes over a period of time in developing an integrated school.

The individual school assessment method provided in this publication was originally developed and field-tested in four California school districts in 1972. The reader should refer, also, to a current SPI Multicultural Education Resource publication titled, Evaluating the School for Multicultural Education, published in June 1982, for supplemental information. The reader is advised, also, that this program may be used with Asian and American Indian children as well as Black and Hispanic.

ACKNOWLEDGEMENT

We want to thank Dr. Harry W. Johnson, II, Testing and Evaluation Office, for reviewing this publication. Dr. Johnson is assigned for technical assistance purposes to the Office for Multicultural and Equity Education.

Warren H. Burton, Director
Office for Multicultural and Equity Education
(206) 753-2560/SCAN 234-2560

Table of Contents

	Page
Purpose	1
The Desegregation-Integration Continuum	1
Characteristics of Cultural Integration	3
Characteristics of Structural Integration	4
Sources of Information	5
Information Returned To The District	7
The 1972 Standardization Population	8
Parental Occupational and Participation Measures	9
Student Attitudinal Variables	10
Student Academic Achievement	12
Student Friendship Choices	13
Teachers' Perceptions of Children of Various Ethnic Groups	14
Teachers' Perceptions of Parents of Various Ethnic Groups	15
Multi-Ethnic Programming	17
Staff Structural Integration and Perceptions	19
Teacher Intention Matrix	19
How To Read The Profiles	20

THE DESEGREGATION-INTEGRATION CONTINUUM

Desegregation-integration is a continuum. Desegregation refers to the extent to which the pupil population and the staff of a particular school includes members of all ethnic groups in proportion to their number in the population served by the school district. Thus, desegregation refers to the pupil and staff assignment patterns within a district. Desegregation precedes integration and is an essential precondition for the development of an integrated school. For this reason, the procedures discussed in this manual are appropriate only for desegregated schools. Operationally, a desegregated school is defined as one which has a minimum of ten children in at least two different ethnic groups enrolled in the grades selected for the sample. Because the evaluation procedures rely on average scores achieved by children of different ethnic groups, we do not feel that means based on less than ten children are sufficiently reliable.

Integration is the social process by which pupils, parents, and educators from a variety of ethnic backgrounds work together to develop a social organization which involves members of each ethnic group in equal status relations and which reflects the culture of each group in its program. The evaluation and implementation procedures cover two aspects of the integration process: cultural integration and structural integration.

Cultural integration is the social process by which children, parents, and teachers acquire an understanding and respect for the language, history, and cultural heritage of all ethnic groups through cultural sharing. Cultural integration does not imply monocultural Anglo conformity but rather the development of the multicultural child who is able to participate in and be enriched by more than one cultural tradition.

It involves developing an institution in which there is unity between the behavior of pupils of all ethnic groups and teacher expectations so that students of all ethnic groups like school, feel positive about themselves, develop a positive identification with their own ethnic and cultural group, feel that they are accepted by others in the school, and are not overly anxious about their school performance or school status.

A culturally integrated school is one in which the children of all ethnic groups not only have an opportunity to acquire the knowledge, skills, and behavior patterns necessary to participate in the mainstream of America's industrial society, but have, in fact, acquired that knowledge, those skills and those behavior patterns.

Structural integration is the social process by which children, parents, and teachers of all ethnic groups acquire statuses and lay roles in the school that are of equivalent power and prestige. Structural integration implies that there is a high level of involvement of the parents of all ethnic groups in the school social structure.

It implies that staff members of all ethnic groups participate in the school structure at all status levels and play equally active roles in the social interaction matrix of the school. For pupils, structural integration implies a high rate of intra and inter-ethnic friendship.

The integration of racial and cultural minority groups in the social system of the elementary school is relatively new to American public education. For that reason, the dimensions of the integration process are relatively uncharted and the factors in a learning environment which facilitate integration have not been fully documented. One purpose of this evaluation program is to identify which variables in the learning environment are correlated with integrated educational outcomes. A second purpose is to provide information, in the form of school profiles, to individual schools indicating how closely that school conforms to the theoretical model of an integrated educational environment compared to other desegregated schools.

The evaluation assesses six critical dimensions--three relating to cultural integration and three to structural integration. The order of presentation does not reflect an order of importance.

CHARACTERISTICS OF CULTURAL INTEGRATION

Self-concepts and attitudes toward school and learning are equally positive in students of all ethnic groups.

Academic achievements of students from all ethnic groups match or exceed the national norms for standardized achievement tests.

Multicultural programs are developed in which curriculum materials, teacher attitudes, and teaching procedures provide all students with an opportunity to understand and to develop pride in their own ethnic heritage and to understand and respect the ethnic heritage of other groups in the classroom and in American society.

CHARACTERISTICS OF STRUCTURAL INTEGRATION

Multi-ethnic Student Roles. Students of all ethnic groups are structurally integrated into the social system of the school so that students of all ethnic groups hold comparable statuses and play comparables roles in the school. Specifically, this means that the children of all ethnic groups perceive each other as friends and that the distribution of valued statuses and roles in the school is similar for all groups.

Multi-ethnic Educator Roles. There is integration of educators of all ethnic groups throughout the staff of the school indicating that the opportunity structure is equally open to educators of all groups. This implies that educators from all ethnic groups are recruited and hold statuses and participate in roles at all levels of the school hierarchy.

Multi-ethnic Parent Roles. Parents of all ethnic groups are structurally integrated into the life of the school so that they hold comparable statuses and play comparable roles in school-related organizations.

SOURCES OF INFORMATION

The unit evaluated is the individual elementary school, not the individual child or teacher. All information collected is for the purpose of calculating average scores for each school.

There are four sources of information for each school: pupil questionnaires completed by third and sixth grade students; ratings of pupils completed by their teachers; staff questionnaires completed by certificated staff members; and statistical information obtained from the principal and/or from public records maintained by the school district. Scores for each school consist of the average score only for those ethnic groups having ten or more children in the third and/or sixth grade of the school.

The measures are administered to each classroom of students by a team of two persons especially trained for this task. Students complete the questionnaires during one hour of class time. One evaluator reads each question aloud while the other circulates throughout the classroom to answer questions and to be certain that students are responding to the correct page and item. If the class contains children whose primary language is Spanish or another language, the questions are read aloud in both English and Spanish/primary language. All questions, however, are printed in English.

While the students are completing the questionnaire, the classroom teacher provides information for each child on the occupation level of the child's parents, the extent to which each child's parents participate in school-related activities, and also indicates the child's sex and ethnic group.

They complete a series of semantic differential ratings for each child and provide information on the teacher's expectations of the amount of education the child will probably receive and the level of occupation he probably will achieve. They also provide his raw scores on standardized academic achievement tests.

During a staff meeting in each school, all teachers in the school answer a questionnaire which takes approximately thirty minutes. Semantic differentials measure each teacher's perception of the power, support for school programs, and achievement motivation of the parents of Black, Anglo, and Mexican-American children in the school. They also report the types and amounts of inservice training they have taken during the past two years, the extent to which they use multi-ethnic materials in the classroom, the extent to which they use professionals and paraprofessionals as resource persons in the classroom, and so forth. In addition, each teacher completes a sociometric questionnaire which measures the extent of social interaction among staff members of the school. More detailed information on the questions asked in these scales is provided later.

Both pupil and teacher questionnaires were designed to be optically scanned and are completed anonymously. Preslugging of case numbers makes it possible to match each pupil questionnaire with the teacher's information about that student. No names of responding teachers or students are needed. All information is machine scored and recorded on magnetic tape. The principal provides additional information about school resources and equipment: length and type of desegregation; characteristics of the school prior to desegregation; participation and function of parental advisory group; student mobility; special programs; free lunch programs; his control of budget and program; and other information.

Data collection is organized on a school-by-school basis. One pair of evaluators can complete approximately four classrooms per day. Therefore, classroom data for an elementary school with four third grade classes and four sixth grade classes can be collected in two days. In addition, thirty minutes during one staff meeting is needed for the staff questionnaire.

INFORMATION RETURNED TO THE DISTRICT

For each participating elementary school, the school district receives a comprehensive computerized profile of the position of that school on each of the individual measures and an aggregate profile for the entire district. Information can be used both cross-sectionally and longitudinally. The profiles of different schools in the same district can be compared, cross-sectionally, at one point in time with each other and with the general profile of other schools in the sample. These comparisons provide educators in a district with cross-sectional data for assessing needs of a particular school at one point in time. If measures are repeated annually, educators can make a longitudinal assessment of the same school over time to determine the extent of change.

All the questionnaires contain combinations of questions relevant to several dimensions. The standard questionnaires are designed to be machine scored. The computer program selects the responses to questions for each scale and scores them separately. Therefore, it is impossible to separate out particular subsets of questions without completely redesigning the forms and the scoring programs.

All findings for individual schools and school districts are confidential and reported only to the responsible officials in that district. Any published reports contain only summary statistics or correlations covering a sample of schools in several different districts. There is no way for an individual school and/or district to be identified.

The 1972 Standardization Population

Four desegregated school districts containing fifty-six elementary schools participated in the evaluation program in the spring of 1972: Pasadena, Oxnard, Inglewood, and Monrovia, California. There were 3,465 Anglo children, 2,210 Black children, 1,212 Mexican-American children, and 972 teachers who responded to the questionnaires. Each questionnaire was scored for each child and teacher. Raw scores for each of the questionnaires used in the study were converted to standard scores with a mean of 50 and a standard deviation of 10. Standardization makes comparisons between scales of different lengths possible. The average standard score for each school on each measure was calculated for each ethnic group, in those schools having ten or more children of that ethnic group who completed the questionnaires. If there were fewer than ten children of a particular ethnic group in a school, no school score is calculated for that ethnic group and the computer prints "No Data." The number of children on whom school scores were based ranged from 13 to 153 for Anglo children, 11 to 101 for Mexican-American children, and 13 to 100 for Black children.

All four school districts were using a variety of methods, including busing, to maintain the ethnic proportions in each school in the district at approximately the same level as the proportion in the district as a whole. Three of the districts used school pairing as the primary basis for desegregation. Under this plan, elementary schools are reorganized into kindergarten to third grade schools and fourth to sixth grade schools by pairing schools formerly kindergarten through sixth grade schools and exchanging their student populations. Classes within schools were also desegregated. Three of the districts desegregated under court order. Eight schools in the sample had been desegregated for eight or more years because of desegregated housing patterns. However, most schools had been segregated prior to implementation of a deliberate desegregation plan. Thirty schools were in their second year of desegregation at the time of the study.

All fifty-six schools contain significant numbers of Anglo children, ranging from 27% to 78% of the total school enrollment. Thirty-six schools contain significant numbers of Black children ranging from 7% to 58% of the enrollment. Thirty-five of the schools contain between 10% and 53% Mexican-American children.

Parental Occupational and Participation Measures

Parental Occupational Level Each teacher of each of the third and sixth grade students in the sample was asked for information concerning the occupational level of the child's parents. There were six categories ranging from unskilled through professional; raw scores on this dimension ranged from 0 through 5.

Parental Participation is based on information provided by the teachers of each of the children in the third and sixth grades in response to three questions: How often the child's parents have participated in conferences concerning the child's school work; how often they have attended school programs, social events, and other activities; and whether they serve as leaders or officers in parent organizations or advisory groups.

Student Attitudinal Variables

Seven different student attitudinal variables were measured in the questionnaire. Each measure will be described briefly.

Self Concept consists of questions asking each child how often he does things as well as other boys and girls? how often he has as good a time as other boys and girls? how often he has better ideas than other boys and girls? how often he can do most of the things he tries? how often wishes he could do a lot of things better? and so forth. Response categories are "Always, Sometimes, or Never." Raw scores range from 0 to 20. A high score indicates positive self concept.

Attitudes of Others is a measure which seeks to discover the child's perception of how others regard him. It asks him how often he is liked by other boys and girls; how often grownups like to have him around; how often grownups think he is smart; how often he does not get along with his teachers; how often other boys and girls wish to

play with him, and so forth. The response categories are "Always, Sometimes, Never." Scores range from 0 to 20. A high score indicates positive regard.

Attitude Toward School is a series of questions asking the child how often he has certain feelings about school. It asks how often he does interesting things in school, how often he looks forward to returning to school after summer vacation; and how often he likes to do the sorts of things they do in school. Scores range from 0 through 8. A high score indicates a positive attitude.

School Anxiety is a series of questions which ask the child how often he worries about various school situations, such as taking tests, not being promoted to the next grade, being asked questions by teachers, and knowing his lessons. Scores of this scale range from 0 to 16. A high score indicates high school anxiety.

Status Anxiety attempts to measure the extent to which a student feels anxiety or fear about his relative status in a school situation. Areas covered are worrying about not being assigned to the best reading or math group, about playing games, about being selected for a class officer, and so forth. Scores range from 0 to 20. A high score indicates high status anxiety.

These five measures are also combined in the profiles into a single total score which we have called Attitudes Toward Self and School. The total range in raw scores is 0 to 84.

Educational Expectations consists of a series of questions asking the child how far he plans to go in school. It inquires whether he is going to graduate from high school someday, whether he is planning to go to college, and whether he is planning to graduate from college. Scores range from 0 to 3. A high score indicates high expectations.

Occupations Expectations asks the child what kind of job he will probably have when he grows up. Jobs are grouped into four categories according to their relative social status. An introductory question was asked to determine whether children are aware of the relative status of various jobs. We found adequate understanding regarding jobs "most people think are best." Scores range from 1 through 4. A high score indicates high expectations.

Student Academic Achievement

Reading achievement was used as the academic achievement measure because schools frequently do not give a Mathematics Achievement test to third grade children. In California, the state mandated program has required that third grade pupils be administered the Cooperative Primary Reading Test. All sixth grade pupils are administered the Comprehensive Test of Basic Skills. Only the total reading score is used for sixth grade students. Public schools in Washington state are advised to utilize the fourth grade test results of the California Achievement Test. The California Test of Basic Skills is utilized during the first three years.

Standard scores were developed for our sample so that results from the two different reading tests would be comparable. Raw scores for the 884 Black, 659 Mexican-American, and 1,553 Anglo third grade children who took the Cooperative Primary Reading Test in the Spring of 1972 were standardized to have a mean score of 50 and a standard deviation of 10. The same procedure was followed for the raw scores of the 737 Black, 543 Mexican-American and 1,155 Anglo sixth grade children who took the Comprehensive Test of Basic Skills. The average standardized reading achievement score for the children in each ethnic group in each school was then calculated and converted to a percentile score. These percentile scores were then used to measure the extent of cultural integration in academic achievement for each school.

In addition, each child in the 1973 sample was administered the Word Knowledge Subtest of the Metropolitan Achievement Test Series. This subtest was selected because it has the highest correlation with total Reading Score and provides the best single, short measure of reading achievement in that series.

Results for Reading Achievement do not appear in the attached profiles because the testing program for the 1972-1973 academic year was not completed at the time these profiles were processed. This information will be added as soon as it is available.

Student Friendship Choices

A list of the names of all of the children enrolled in each classroom was placed on the board and numbered. Each child in the classroom was asked to report, "How often you like to do things in class with other students." There were three response categories, "Always, Sometimes, Not at all." Each child responded with one of these three responses to the name of every other child in the class.

Children were classified by ethnic group and the average score given the children of each ethnic group by the children of every other ethnic group was calculated for the entire school. One hundred was added to each score to facilitate data handling. Raw scores ranged from 0 to 200.

Teachers' Perceptions of Children of Various Ethnic Groups

Four basic perceptions which teachers have of children in their classes are reported for each school by the ethnic group of the child being rated. Each teacher was asked to rate each third and/or sixth grade child in her class on 18 semantic differential ratings. These ratings consisted of bi-polar adjectives. There is a five-point rating scale ranging from one adjective to the other. These pairs of bi-polar adjectives were selected on the basis of a factor analysis of semantic differential ratings used in the Riverside desegregation Study. The six ratings with the highest loadings on each of three primary factors were selected for use in the present evaluation. Scores are based on the sum of the scores given the child by the teacher on the six ratings in each factor. The school score is based on the average rating given children of each ethnic group by the teachers in each school.

Sociability-Extroversion is a teacher rating based on the following bi-polar adjectives: introversion-extroversion; sociable-unsociable; cold-war; colorful-colorless; aloof-friendly; and morose-cheerful.

Emotional stability is a teacher rating based on the following bi-polar adjectives: cruel-kind; obedient-disobedient; prone to anger-not prone to anger; easy to discipline-difficult to discipline; obstructive-cooperative; and patient-impatient.

Competence is a teacher rating based on the following bi-polar adjectives: dull minded-intelligent; slow-quick; able to concentrate-subject to distraction; disorganized-organized; good memory-poor memory; and preserving-quitting.

Expected achievement is a teacher rating based on a score which combines the teacher's responses to the following two questions: "On the basis of your knowledge of this student's aptitudes and motivation for education, how many years of schooling do you expect he will probably complete? What level of occupation do you expect this student will probably achieve as an adult?" Responses were coded into five categories for both occupation and education. The responses for the two questions were added together to form the score for expected achievement.

Teachers' Perceptions of Parents of Various Ethnic Groups

Teachers were asked to report the kinds of experiences which they have generally had with the parents of the children in their classroom. Based on their contacts with parents from different ethnic groups, they were asked to complete a series of twelve semantic differential ratings. The ratings selected for this measure were based on a factor analysis of similar ratings secured in the Riverside Desegregation Study. The three ratings which had the highest loading on four factors were used in the following scales.

Achievement motivation is a measure of the extent to which teachers perceive parents as concerned with their child's educational performance. The scores were based on the following three ratings: concern with child's performance-not concerned with child's performance; respond to teacher's notes and suggestions-don't respond to teacher's notes and suggestions; high aspirations for children-low aspirations for children.

Power is a rating of the teacher's perception of the parent's ability to influence educational policy. This score is based on the following three ratings: makes demands on school-don't make demands on school; powerful in the community-not powerful in the community; not able to influence school policy-able to influence school policy.

Support school program is a rating of the extent to which the teachers feel that parents of various ethnic groups are supporting the educational program of the school. Scores are based on the following three ratings: understand school program-don't understand school program; hard to contact-easy to contact; don't back up teacher's discipline-back up teacher's discipline.

Attitude toward desegregation is a series of ratings based on the teacher's perception of how parents feel about desegregation. Scores are based on the following three semantic differential ratings: not favorable to busing-favorable to busing; support school integration-oppose school integration; want to assimilate with other groups-don't want to assimilate with other groups.

Multi-Ethnic Programming

A series of measures were designed to investigate attitudes toward cultural pluralism and the extent of multi-ethnic programming in a particular elementary school. In addition, teachers were asked to report the types of inservice training courses in which they had participated during the previous two years and the extent to which they made use of supplementary personnel in their classrooms.

Attitude toward cultural pluralism is a measure based on the teacher's responses to seven questions regarding standards of behavior and discipline; academic grading; ability grouping; maintenance of ethnic and cultural identity; school desegregation; treatment of racial and ethnic issues in the classroom; and curriculum revisions. A teacher scoring high on this scale favors cultural pluralism rather than Anglo-conformity in the school program.

Multi-ethnic programming. These were checklists relating to multi-ethnic programming: the extent to which ethnic holidays are recognized in the classroom program and the extent to which multi-ethnic materials are used by the teacher in classroom work.

Inservice teacher training. Each teacher was presented with a list of nine types of inservice programs educators take for inservice training. Each teacher was asked to think about any workshops, seminars, classes or in-service programs they had taken in the past two years. They were asked to calculate and record the number of clock hours spent in the past two years attending classes in each of the nine different categories. These classes were then grouped into three major types of programs.

Multi-ethnic methods were courses dealing with Black History and/or culture; Mexican-American history and/or culture; methods in bilingual education; or materials and methods in developing a multi-ethnic program.

Attitude change programs included courses directed at increasing the teacher's understanding of the disadvantaged and/or minority child and programs using sensitivity-encounter group approaches.

Traditional methods included the traditional inservice teacher training courses in teaching of reading, math, and language skills or the use of behavior modification and shaping techniques.

The use of supplementary personnel. Each teacher was asked to report how frequently she used various types of persons to assist in working with students. The categories available for response were: never or not available; couple times a month; couple of times a week; daily. Two types of

personnel were included on the list: paraprofessionals and volunteers such as teacher aides, parent volunteers, student tutors, and cross grade helpers. The other category of supplementary personnel were those who had professional training as speech and hearing specialists, bilingual specialists; reading specialists; school psychologists and so forth.

Staff Structural Integration and Perceptions

Each teacher was asked to rate the administration in the school and to describe the teachers in the school as a group on two characteristics using twelve semantic differential ratings.

Education Commitment, Innovation, and Organization were rated using the following bi-polar adjectives: committed-uncommitted; indifferent-enthusiastic; unconcerned-involved; rigid-innovative; closed to new ideas-open to new ideas; resourceful-not resourceful; makes important decisions-doesn't make important decisions; influences educational policy-doesn't influence educational policy; doesn't plan curriculum-plans curriculum.

Attitude Toward Desegregation was rated using the following bi-polar adjectives; opposes school integration-supports school integration; favorable to busing-not favorable to busing; favors assimilation of ethnic group-opposed assimilation of ethnic groups.

Teacher Interaction Matrix

Each staff member was asked to report how well acquainted he was with all other members of the school staff both certificated and noncertificated. The ratings on the scale ranged from "do not know who he/she is" to "very well acquainted, see both at school and outside of school". The average score given staff members of different ethnic groups was calculated for each school to determine the level of acquaintance of staff members with each other in a particular school.

How to Read the Profiles

On the following page is the first profile from the set for an actual elementary school. This profile is used for illustrative purposes.

This profile shows the score of an actual school on the five subtests that make up our measure of Attitudes Toward Self and School--Self-Esteem, Reflected Self, Attitude Toward School, School Anxiety, and Status Anxiety. The average percentile score for the children of each ethnic group in this school was calculated on each of these measures. The numbers across the top of the chart are percentiles. They tell us what percentage of the children in the standardization sample scored below that point. For example, the 40th percentile means that 40% of the children in the 1972 sample scored below that point. The 50th percentile is the median or middle score.

Because children differ in the way they feel from one day to another, we would not expect to get exactly the same average score from the same group of children if we measured them on different days. Their scores would fluctuate somewhat. The percentile range is printed beside the name of

each ethnic group. If we were to repeatedly retest samples of children from that ethnic group in that school, we would expect that their average percentile range in self-esteem for Black children in this school is 62 to 66. This means that we would expect that if we retested the Black children would fall between the 62nd and 66th percentile. The percentile range for the Anglo children in this school is 58 to 62 while that for the Asian-American children is 78 to 82.

You will notice that there is not data for Mexican-American children in this school. This means that there were fewer than 100 Mexican-American children in the classes answering the questionnaires on the day the children in the school were tested. We have programmed the computer so that it does not calculate an average score for less than 10 children.

On the profile itself, are broken lines, each of which has a capital "L" at the left end and a capital "H" at the right end. The "L" stands for low and the "H" for high. This line shows the total range of average school scores secured in the 1972 sample for that particular ethnic group. The X's on the line, indicate the placement of this schools' percentile score in relation of the school scores in the norming sample. By noting the relative placement of the X's on the line, you can determine whether this school is low or high compared to the other schools in the 1972 standardization sample. For the school in this profile, all the X's are on the "high" end of the range and above the median of 50 for Self-Esteem.

You will notice that there is not a broken line for the Asian-American children. We did not have enough schools in the 1972 sample with enough Asian-American children in them to establish a range for Asian-American children. However, you can readily see that Asian-American children score higher in "Self-Esteem" in this school than either the Black or Anglo children in this school.

You will notice that some scores are indicated by three X's and some scores by only one X. Those with three X's have a wider range of variability than those with one X. Each X represents approximately two percentile points.

The chart on the right hand side of the page presents a one-way analysis of variance for this school. This is a statistical test to determine whether the differences between the scores of the Black, Anglo, and Asian-American children in this school are significantly different or whether the differences in their scores could be due to chance fluctuation. The analysis of variance was done on the actual or raw scores of the children on each measure rather than the percentile scores.

The first column in the table presents the range of raw scores possible for each measure. At the lowest extreme, a child could score zero on the Self Esteem measure, if he answered every question as negatively as possible. He could score 20 on the Self-Esteem measure if he answered every question as positively as possible. Most children, of course, scored somewhere between the two extremes.

In this school, the average raw score for Self-Esteem for Black children was 12.30, for Anglo children 12.05, and for Asian-American children it was 13.48.

The next column presents the standard deviation for each average raw score. This statistic tells us how much, in general, the scores for different children in the same ethnic group differ from the average for their group. This number tells us that approximately 66% of the Black children in the school scored between 1.94 points below the average and 1.94 above the average. More simply, we can say that 66% of the Black children in this school had a score between 10.36 and 14.24 on the Self Esteem measure. In general, the variability in the score of the children of different ethnic groups tends to be similar. However, it is always useful to check the standard deviation. In some cases, one group may have greater variability than another, indicating that responses of children in that group are less homogenous than those of other groups and are more scattered around the mean.

The sample size tells us the number of children whose scores were included in calculating the average for that school and in making the statistical analysis. In this school there were 23 Black children, 41 Anglo children, and 33 Asian-American children whose scores are included in the profile.

The "F" ratio and significance level indicate whether the differences in the average scores of the three groups are likely to be due to chance variation. The significance level for Self-Esteem is .03459. This means that we would expect to find differences of this magnitude between the average scores of the three groups of children in this school only about three times in one hundred by chance. Traditionally, any difference that is likely to occur five or fewer times in one hundred is considered "statistically significant". If the significance level is larger than .05, it is best not to try to interpret the differences. In this school three of the five differences on this profile were statistically significant--Self Esteem, the Reflected Self, and School Anxiety. Average group scores on Attitude Toward School and Status Anxiety were not statistically significant.

When there are three groups in a school, as in our example, we may wish to know exactly which scores are significantly different--the Anglo score compared to the Black score, the Black score compared to the Asian-American score, or the Anglo score compared to the Asian-American score? It is possible to make such a test, but we did not have room to report that much information on the profile. For this reason, it is best not to try to make that detailed an interpretation of the group differences unless they are very large and clear. Of course, when there are only two groups, we do not have any problem interpreting the exact meaning of the results.

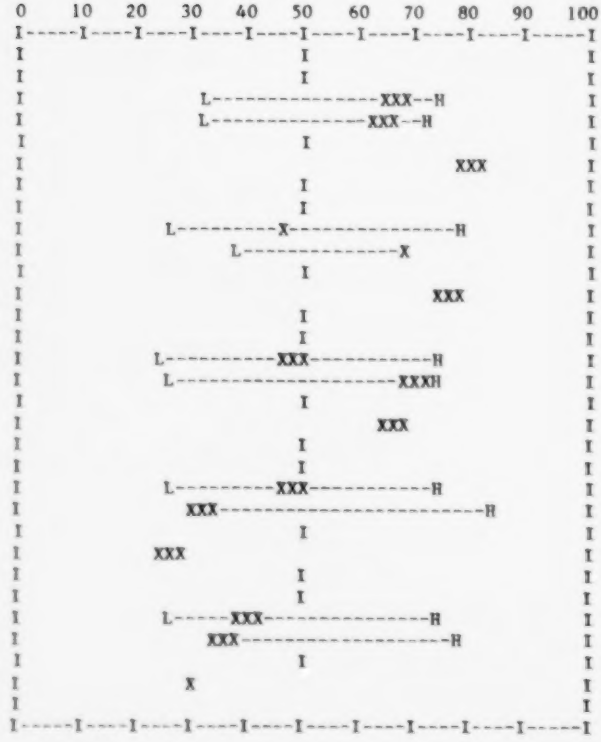
In general, we found that those schools in which children had high Self Esteem, high Reflected Self, and positive Attitudes Toward School were those in which they had low School Anxiety and low Status Anxiety. If you look at the scores on this profile, you will notice that this pattern also holds for the sample school.

Summary

In general, we find large differences between the profiles of different schools in the same school district. For that reason, a district profile based on all the schools in a district or a profile based on Zones or other subtests of schools in a district are not likely to be too informative in making educational assessments or working for educational change. The characteristics of the children attending those schools are the most valuable level for analysis. If principals and teachers in individual schools study the profiles from their school carefully, they can be useful in assessing the affective climate of the school and in setting goals and priorities for educational planning.

PRIME EVALUATION OF INTEGRATION FOLLOWING DESEGREGATION
STUDENT OUTPUT VARIABLES - RESPONSE TO SELF AND SCHOOL

SCHOOL



VARIABLES	PERCENTILE	RAW SCORE RANGE	AVG RAW SCORE	STD DEV	SAMPLE SIZE	F RATIO	SIGNIF LEVEL
SELF ESTEEM							
BLACK	62 - 66		12.30	1.94	23		
ANGLO	58 - 62	000-020	12.05	2.75	41	3.49	0.03459
MEXICAN-AM.	NO DATA						
ASIAN-AM.	78 - 82		13.48	2.22	33		
REFLECTED SELF							
BLACK	46 - 46		11.57	2.54	23		
ANGLO	66 - 66	000-020	13.02	3.55	41	3.37	0.03376
MEXICAN-AM.	NO DATA						
ASIAN-AM.	72 - 76		13.67	2.55	33		
ATTITUDE TOWARD SCHOOL							
BLACK	46 - 50		5.13	1.58	23		
ANGLO	66 - 70	000-008	5.88	1.42	41	1.94	0.14998
MEXICAN-AM.	NO DATA						
ASIAN-AM.	62 - 66		5.70	1.47	33		
SCHOOL ANXIETY							
BLACK	46 - 50		5.91	2.66	23		
ANGLO	30 - 34	000-016	4.73	2.89	41	3.24	0.04355
MEXICAN-AM.	NO DATA						
ASIAN-AM.	24 - 28		4.09	2.28	33		
STATUS ANXIETY							
BLACK	38 - 42		6.35	2.95	23		
ANGLO	34 - 38	000-020	6.07	3.21	41	0.50	0.60397
MEXICAN-AM.	NO DATA						
ASIAN-AM.	30 - 30		5.58	2.68	33		

P204L8.01

DR. FRANK B. BROUILLET
Superintendent of Public Instruction

Old Capitol Building, FG-11, Olympia, WA 98504